

NOTE ON SEVENTEEN SPECIES FROM CHINA OF THE GENUS *SAPROMYZA*, WITH DESCRIPTION OF TWO NEW SPECIES (DIPTERA, LAUXANIIDAE)

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Abstract *Sapromyza (Notiosapromyza) hainanensis* sp. nov. and *S. (Sapromyza) ventistriata* sp. nov., are described as new to science, and *S. (N.) longimentula* Sasakawa, 2001, *S. (S.) annulifera* Malloch, 1929, *S. (S.) sexmaculata* Sasakawa, 2001 and *S. (S.) septemnotata* Sasakawa, 2001 are recorded from China for the first time, *S. (S.) albiceps* (Fallén, 1820) and *S. (S.) pollinifrons* Malloch, 1927 are supplemented for new distributions and *S. (S.) pollinifrons* Malloch, 1927 is also recorded from Malaysia for the first time. A key is presented to separate seventeen species of the genus from China.

Key words Diptera, Lauxaniidae, *Sapromyza*, new species, China.

The genus *Sapromyza* Fallén, 1810 is the unique genus of Lauxaniidae distributed in six zoogeographical regions of the world. It is also the second largest genus of Lauxaniidae with 316 described species of five subgenera, accounting for 38.9%, 11.7%, 3.8%, 25%, 3.8% and 19.9% respectively in the Palaearctic, Oriental, Afrotropical, Australian/Oceanian, Nearctic and Neotropical Regions. Among those, 151 described species were founded in the Palaearctic and Oriental Regions, only 11 in China. But this genus is one of early several genera (Diptera, Lauxaniidae) to be concentrated on, the genetic position of many species were transferred from other families or genera and parts of type specimens were damaged or lost due to the war or other things, the synonyms are serious and the type specimens of a few of species need to be designated, so it is necessary to be revised.

In the past twenty years, only several dipterists described new species and made revisions of species, including Merz (2007, 2009), Sasakawa (2001, 2002, 2008), Shatalkin (1992, 1993, 1995, 1998, 2000), Shi *et al.* (2010). Particularly, Merz (2007) reviewed the research history of *Sapromyza* for the first time, discussed several similar genera and gave the genetic diagnostic characters of *Sapromyza*. Sasakawa (2008) made the 30 species list of the Oriental Region for the first time, but the following four species were not put in the key: a valid species *S. (S.) beccarii* Kertész, 1900 and three species that are regarded as the obsolete combination in the online Biosystematic Database of World Diptera (BDWD) including *S. (S.) hyalipennis* (de Meijere, 1914), *S. (S.) lorentzi*

(Meijere, 1913) and *S. (S.) vittata* (Frey, 1917).

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The genus *Sapromyza* can be separated from other genera by the following characters: face flat or concaved, not invisible in lateral view; frons broad, minute setulae present or absent on anterior 1/2; mesonotum with blackish brown stripe-like or round or irregular spots present or absent, 0-1 + 2-3 strong *dc* (often 0 + 3 *dc* except for those species with 1 + 3 *dc* in the Neotropical and Australian Regions, so it can be separated from the subgenus *Lyciella* of the genus *Meiosimyza* which distribute in the Palaearctic Region by the mesonotum lacking presutural seta); no postsutural *ia* (the black species can be separated from the genus *Minettia* by this character); katepisternum with 2 *kepst*; wing with costa extending between R_{4+5} and M_1 , rarely very close to tip of M_1 ; fore femur without ctenidium (it can be separated from the subgenus *Homoneura* of the genus *Homoneura* by this character when the wing costa extends closely to the tip of M_1); abdomen rarely with black spots (Merz, 2007; Stuckenberg, 1971).

In the present paper, *Sapromyza (Notiosapromyza) hainanensis* sp. nov. and *S. (Sapromyza) ventistriata* sp. nov., are described as new to science, and *S. (N.) longimentula* Sasakawa, 2001, *S. (S.) annulifera* Malloch, 1929, *S. (S.) sexmaculata* Sasakawa, 2001 and *S. (S.) septemnotata* Sasakawa, 2001 are recorded from China for the first time, *S. (S.) albiceps* (Fallén, 1820) and *S. (S.) pollinifrons* Malloch, 1927 are supplemented for new distributions and *S. (S.)*

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pollinifrons Malloch, 1927 is also recorded from Malaysia for the first time. A key is presented to separate seventeen species of the genus from China.

1 Materials and Methods

The general terminology follows McAlpine (1981) and Shewell (1987). Genitalia preparations were made by macerating the apical portion of the abdomen in cold saturated NaOH for one hour, after examination it was transferred to fresh glycerin and stored in a microvial pinned below the specimen.

Materials examined were deposited in the following museums: Entomological Museum of China Agricultural University, Beijing, China (CAUC); Bishop Museum, Honolulu, Hawaii, USA (BPBM); Hungarian Natural History Museum, Budapest, Hungary (HNHM); Museum für Naturkunde, Humboldt-Universität Berlin, Berlin, Germany (MNHU); Sam Noble Oklahoma Museum of Natural History, Norman, U. S. A (OMNH), Senckenberg Deutsches Entomologisches Institute, Müncheberg, Germany (SDEI); National Museum of Natural History, Washington, D. C. (USNM); Zoological Museum of the Zoological Institute of the Russian Academy of Sciences, Saint Petersburg, Russia (ZMAS); Zentralmagazin Naturwissenschaftlicher Sammlungen, Halle (Saale), Germany (ZNS).

The following abbreviations are used: *a*-anterior seta, *acr*-acrostichal seta, *ad*-anterior dorsal seta, *anepst*-anepisternal seta, *app*-apical posterior seta, *avp*-apical ventral seta, *dc*-dorsocentral seta, *ia*-intra alar, *kepst*-katepisternal seta, *oc*-ocellar seta, *or*-fronto-orbital seta, *pd*-posterior dorsal seta, *prsc*-prescutellar seta, *pv*-posterior ventral seta.

2 Taxonomy

Key to seventeen species from China of the genus *Sapromyza*

1. Mesonotum with a weak or strong presutural *ia* subgenus *Notiosapromyza* Sasakawa 2
 - Mesonotum without a weak or strong presutural *ia* subgenus *Sapromyza* Fallén 3
 2. Frons with two narrow pale brown median stripes; face with a wide blackish brown transverse band on lower margin; mesonotum with six brown stripes and long *acr* (Figs 1-2); gonopod spoon-shaped, broad apically; a pair of lateral sclerites of aedeagus convergent apically in ventral view (Figs 10-11) *S. (N.) hainanensis* sp. nov.
 - Frons with a blackish brown triangular median stripe; face without spot (Figs 14-15); mesonotum with five brown stripes and no long *acr* (Figs 16-17); gonopod with 2 teeth at tip; a pair of lateral sclerites of aedeagus divergent apically, each with an inner basal tooth in ventral view (Sasakawa, 2001; Fig. 6) *S. (N.) longimentula* Sasakawa
 3. Mesonotum with 0+3 *dc* 4
 - Mesonotum with 0+2 *dc* 8
 4. Body blackish gray; mesonotum with gray pruinosity; antenna pubescent *S. (S.) agrimonyza* (Kertész)
 - Body yellow to yellowish brown; mesonotum with sparse grayish

- white pruinosity 5
5. Frons and face with thick silver white pruinosity (Fig. 4); male only with posterior *or*; female with two pairs of *or* and abdominal tergites 5-6 each with two pairs of small blackish brown round spots (larger spots on tergite 6, a few of specimens without blackish brown spots) *S. (S.) albiceps* (Fallén)
 - Frons and face without thick silver white pruinosity; male with two pairs of *or* 6
 6. Abdomen yellow without brown spot; 1st flagellomere yellow; palpus yellow; mesonotum with 0+3 *dc*, *acr* 4-6 rows without long *acr* *S. (S.) rubricornis* Becker
 - Abdomen brownish yellow with brown spots 7
 7. Face without narrow black transverse band (Fig. 48); mesonotum with a pair of brown stripes (Fig. 52); abdominal tergites 2-6 each with black posterior margin and tergites 4-6 each with a pair of blackish brown spots; male genitalia (Sasakawa, 2002, fig. 8) *S. (S.) terminalis* Sasakawa
 - Face with narrow black transverse band on lower margin (Fig. 25); mesonotum without brown stripes (Fig. 28); abdominal tergites 5-6 each with a pair of brown spots (Fig. 29); male genitalia (Sasakawa, 2002, fig. 7) *S. (S.) conjuncta* Sasakawa
 8. Head and mesonotum black; antennal scape and pedicel blackish brown and 1st flagellomere mostly yellow except blackish brown apical margin; mesonotum with yellowish brown pruinosity, *acr* in 8-10 rows; abdomen black with sparse brown pruinosity *S. (S.) fasciatifrons* (Kertész)
 - Head yellow to brownish yellow and mesonotum yellow or black 9
 9. Mesonotum blackish brown to entirely black 10
 - Mesonotum brownish yellow to yellowish brown 12
 10. Mesonotum blackish brown, with sparse gray pruinosity (Fig. 36); head yellow, thorax and abdomen mostly blackish brown (Fig. 31); abdomen; female blackish brown, tergites 1-5 each with a pair of irregular yellow spots along lateral margin; male brown and male genitalia; protandrium yellow and very broad (Figs 40-41) *S. (S.) pollinifrons* Malloch
 - Mesonotum with thicker yellow or gray pruinosity, shining or dark 11
 11. Mesonotum with thicker yellow pruinosity, extending to scutellum (Figs 5-6); *acr* in 4 rows, no *prsc*; antennal 1st flagellomere yellow *S. (S.) annulifera* Malloch
 - Mesonotum with thicker gray pruinosity; *acr* in 6 rows, *prsc* developed; antennal 1st flagellomere dark brownish yellow except black apical margin *S. (S.) flavopleura* Malloch
 12. Mesonotum with brown stripes or spots 13
 - Mesonotum without brown stripes or spots; abdominal tergites 4-6 each with a pair of black lateral spots *S. (S.) sexpunctata* Meigen
 13. Mesonotum with six small brown spots (Figs 44-45); male genitalia (Sasakawa, 2001, fig. 9A) *S. (S.) sexmaculata* Sasakawa
 - Mesonotum only with long brown stripes 14
 14. Mesonotum yellowish gray, with a broad blackish gray stripe extending to scutellum *S. (S.) pleuralis* (Kertész)
 - Mesonotum entirely yellow, with five to seven black stripes 15
 15. Mesonotum with seven brown stripes (Figs 42-43); abdominal tergites entirely brownish yellow; male genitalia (Sasakawa, 2001, fig. 9B) *S. (S.) septemnotata* Sasakawa
 - Mesonotum with five brown stripes; abdominal tergites with brown spots 16
 16. Mesonotum with *acr* in 6 rows; femora blackish brown, tibiae and tarsi yellow *S. (S.) zebra* (Kertész)
 - Mesonotum with *acr* in 4 rows; leg mostly yellow except femora, basal tips of all tibiae and tarsomeres 3-5 black (Fig. 46); gonopod subuliform with 5-6 apical setulae; aedeagus slender, constricted apically, with a pair of laterally curved apical processes in ventral view and contorted columnar in lateral view (Figs 55-56) *S. (S.) ventistriata* sp. nov.

***Sapromyza (Notiosapromyza) hainanensis* sp. nov.**
(Figs 1–2, 7–11)

Description. Male. Body length 2.4–3.1 mm, wing length 2.4–2.8 mm. Female. Body length 2.4–3.0 mm, wing length 2.6–2.9 mm.

Head yellow. Frons longer than wide and parallel-sided, with two narrow pale brown median stripes extending to ocellar triangle; ocellar triangle grayish black; *oc* strong, shorter than posterior *or*.

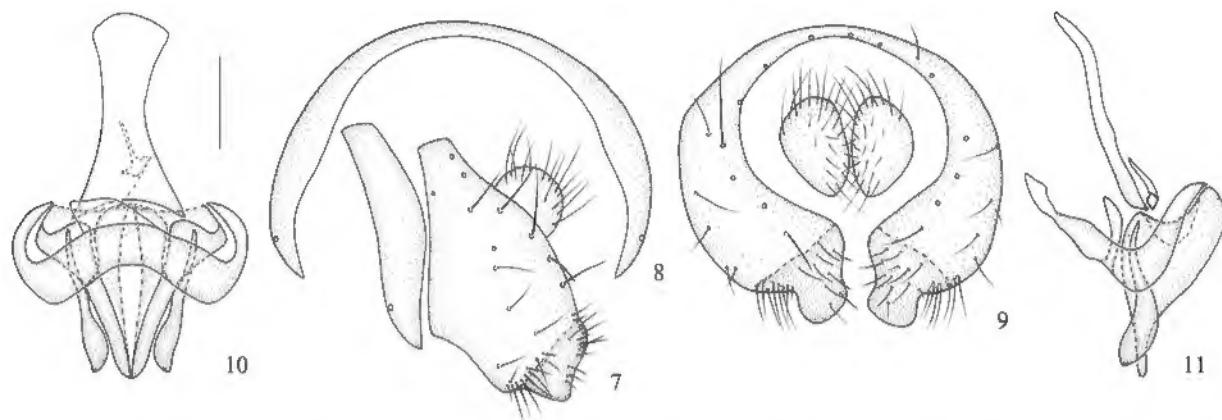
Face with a broad blackish brown transverse band on lower margin. Gena about 1/6 height of eye. Antennal scape and pedicel black, 1st flagellomere yellow except brown on apical 1/2, 1st flagellomere 1.9 times longer than high; arista black except brownish base, with microscopic setulae. Proboscis brownish yellow, with yellowish and blackish setulae; palpus black with blackish setulae.



Figs 1–6. Habitus, head and thorax. 1–2. *Sapromyza (Notiosapromyza) hainanensis* sp. nov. 3–4. *Sapromyza (Sapromyza) albiceps* (Fallén, 1820). 5–6. *Sapromyza (Sapromyza) annulifera* Malloch, 1929.

Thorax yellow with sparse whitish gray pruinosity. Mesonotum with two pale brown median stripes, two pale brown sublateral stripes and two blackish brown lateral stripes along notopleuron; anterior margin of four pale brown stripes each with an

indistinct black spot; 0+3 *dc*, a short presutural *ia*, *acr* 1–2+3, in 2 rows; *prsc* nearly as long as 1st post-sutural *dc*. Anepisternum yellow with a blackish brown median band; katepisternum yellow with a blackish brown band along upper margin. 1 *anepst*, 2 *kepst*.



Figs 7 – 11. *Sapromyza (Notiosapromyza) hainanensis* sp. nov., male. 7. Protandrium and epandrium, lateral view. 8. Protandrium, anterior view. 9. Epandrial complex, posterior view. 10. Aedeagal complex, ventral view. 11. Aedeagal complex, lateral view. Scale bar = 0.1 mm.

Scutellum yellow with whitish gray pruinosity, two pale brown stripe-like spots, not reaching apical tip. Legs mostly yellow, except joints between fore and mid femora and tibiae pale brown, joint between hind femur and tibia blackish brown, tarsomeres 3 – 5 brown. Fore femur with 4 *pv* and 6 *pd*; fore tibia with 1 long preapical *ad* and 1 short *apv*. Mid femur with 4 – 5 *a* and 1 *app*; mid tibia with 1 strong preapical *ad* and 1 strong *apv*. Hind femur with 1 preapical *ad*; hind tibia with 1 preapical *ad* and 1 short *apv*. Wing (Fig. 1) slightly dark yellow, without spot; subcostal cell hyaline; costa with 2nd (between R_1 and R_{2+3}), 3rd (between R_{2+3} and R_{4+5}) and 4th (between R_{4+5} and M_1) sections in proportion of 1.5 mm: 0.4 mm: 0.3 mm; *r-m* at middle of discal cell; ultimate and penultimate sections of M_1 in proportion of 1.0 mm: 1.0 mm; ultimate section of CuA_1 about 1/4 of penultimate. Halter yellow.

Abdomen. Yellow with sparse whitish gray pruinosity, slightly shining; tergites 4 – 5 each with a pair of brown transverse lateral bands on posterior margin, tergite 3 sometimes with a pair of brown lateral bands on posterior margin. Male genitalia (Figs 7 – 11): protandrium semicircular; epandrium broad with 6 – 7 pairs of dorsal setae; surstyli nearly triangular with a small ventroapical concavity and a row of short setulae on top of concavity in lateral view, but with a row of ventroapical setulae and sparse dorsal setulae in posterior view; hypandrium nearly W-shaped in ventral view, gonopod spoon-shaped, broad apically; aedeagus slender, two lateral sclerites contacted apically in ventral view; aedeagal apodeme longer than aedeagus.

Remarks. The new species is similar to *S. (N.) quadridentata* Sasakawa from Vietnam in the following characters: frons with two narrow pale brown median stripes extending to ocellar triangle; antennal 1st flagellomere yellow except brown on apical 1/2; mesonotum with six brown stripes; scutellum with two

blackish brown stripe-like spots, not extending to apical tip; legs with joint between femur and tibia pale brown to brown; all femora brown to black. But it can be separated from the latter by the face having a broad blackish brown transverse band on the lower margin, the abdominal tergites 4 – 5 with a pair of brown lateral bands on the posterior margin (tergite 3 with a brown lateral band in a few specimens), the surstyli nearly triangular with a small ventroapical concavity and a row of short setulae on top of concavity in lateral view, and the aedeagus without large acuate apical processes.

Holotype ♂ (CAUC), China, Hongmao Village (19° 01' N, 109° 40' E; alt. 430 m), Yinggeling National Nature Reserve, Baisha, Hainan, 22 May 2007, ZHANG Jun-Hua. Paratypes: 5 ♂♂, 7 ♀♀ (CAUC), same data as holotype; 6 ♂♂, 3 ♀♀ (CAUC), same locality and date as holotype, ZHANG Kui-Yan; 6 ♀♀ (CAUC), same locality and date as holotype, WANG Yong-Jie.

Distribution. China (Hainan).

Etymology. The new species is named after the type locality Hainan.

Sapromyza (Notiosapromyza) longimentula
Sasakawa, 2001 (Figs 12 – 18)

Sapromyza (Notiosapromyza) longimentula Sasakawa, 2001: 47. Type locality: Vietnam (Fyan). Sasakawa, 2008: 43.

Diagnosis. Frons with a narrow black median stripe. Gena very narrow, about 1/7 height of eye. Antenna with scape and pedicel black, 1st flagellomere yellow except a black apical spot on upper margin. Palpus black except for basal tip. Mesonotum with a black median stripe extending before tip of scutellum, two black sublateral stripes extending from anterior margin to scutoscutellar suture and two black lateral stripes along notopleuron; 0 + 3 *dc*. Legs yellow except for black point of junction between femur and tibia. Abdomen yellow, tergites 3 – 5 each with a pair of black



Figs 12–18. *Sapromyza (Notiosapromyza) longinotula* Sasakawa, 2001, male. 12. Habitus, lateral view. 13–15. Head, lateral, anterior and dorsal view. 16–17. Thorax, dorsal and lateral view. 18. Abdomen, lateral view.

spots, enlarging gradually from tergite 3 to tergite 5 (smaller round or elliptical spots on tergites 3–4 and larger quadrate spots on tergite 5).

Remarks. According to holotype specimen from BPBM and non-type specimens from CAUC, the presutural *ia* on the mesonotum is very weak hair-like with the similar length as *ae* surrounded presutural *ia*, so this species might belong to the subgenus *Sapromyza*. This will be confirmed according to some specimens from other localities in the future.

Material examined. Holotype ♀ (BPBM, No. 16420, but holotype “♂” in the original description of Sasakawa, 2001), Vietnam, Fyan (11° 21' N, 106° 11' E; alt. 900–1 000 m), 11 July to 9 Aug. 1961, N. R. Spencer (Det. M. Sasakawa). 2 ♂♂, 1 ♀ (CAUC), China, Tianchi (18° 45' N, 108° 50' E; alt. 800 m), Jianfengling National Nature Reserve, Ledong, Hainan, 16 May 2006, DONG

Hui; 1 ♂ (CAUC), same locality and date as above, GANG Yao; 1 ♂ (CAUC), China, Wuzhishan National Nature Reserve (18° 46' N, 109° 31' E; alt. 600 m), Wuzhishan, Hainan, 17 May 2007, ZHANG Jun-Hua; 3 ♂♂ (CAUC), China, Botanical Garden (18° 45' N, 108° 50' E; alt. 800 m), Jianfengling National Nature Reserve, Ledong, Hainan, 7–9 May 2008, LIU Qi-Fei; 1 ♂ (CAUC), China, Hongmao Village (19° 01' N 109° 40' E; alt. 430 m), Yinggeling National Nature Reserve, Baisha, Hainan, 22 May 2007, ZHANG Kui-Yan.

Distribution. Vietnam, new record to China (Hainan).

***Sapromyza agromyzina* (Kertész, 1913)**

Lauxania (Sapromyza) agromyzina Kertész, 1913: 93. Type locality: China (Taiwan).

Sapromyza agromyzina (Kertész, 1913); Sasakawa, 2008: 44.

Translation from German literature.

Description. Body length 2.5 mm, wing length 2.25 mm.

Frons black, with anterior margin darker than posterior margin. *Oc* extending before anterior *or*. Antenna blackish brown, 1st flagellomere short elliptical, longer than high, in proportion of 7:5. Arista short pubescent, upper and lower setulae with same length, longest setula about 1/7 height of 1st flagellomere. Parafacial concaved on ventral 1/2. Clypeus, gena and occiput dark black, with gray pruinosity. Eye oval. Proboscis brown, palpus black.

Thorax dark black, with gray pruinosity, 0+3 *dc*, *acr* in 6 rows, *prsc* developed. Anepisternum and katepisternum dark black with gray pruinosity, 1 *anepst* short hair-like and 2 *kepst* with same length. Scutellum dark black, flat with gray pruinosity and apical scutellar setae paralleled. Leg brown. Fore femur with 4 *fv*. Wing slightly brownish yellow. Halter pale brown, knob black.

Type specimen (Female) was collected from Chip Chip (III. 1909) and deposited in HNHM.

Distribution. China (Taiwan).

Sapromyza (Sapromyza) albiceps Fallén, 1820 (Figs 3-4)

Sapromyza albiceps Fallén, 1820: 33. Type locality: Sweden (Esperöd). Shatalkin, 2000: 71, 73.

Sapromyza (Sapromyza) albiceps Fallén, 1820; Merz, 2003: 347 (Lectotype designated).

Paralaxania albiceps; Hendel, 1908: 29.

Diagnosis. The species is special and entirely different from other species in the genus by the following characters: frons and face with thick silver white pruinosity, male only with posterior *or* and abdomen yellow without spots, female with two pairs of *or* and abdominal tergites 5-6 each with a pair of small blackish brown round spots (no spots in a few specimens).

Material examined. 2 ♂♂ (CAUC), China, Botanical Garden and Liangdianxia (35° 29' N, 106° 18' E; alt. 1 000-2 000 m), Liupanshan, Jingyuan, Ningxia, 16-17 July 2007, DONG Qi-Biao; 1 ♂, 1 ♀ (CAUC, donated by Dr. B. MERZ), Switzerland, Helv (46° 08' N, 8° 46' E; alt. 350 m), Biasca-Loderio, Ascona, 17 May 2000, leg. B. MERZ and Ulrich; 1 ♂, 1 ♀ (CAUC, donated by Dr. B. MERZ), Switzerland, Helv (46° 12' N, 5° 59' E; alt. 450 m), Les Bailleets, Russin, 30 June 2000, leg. B. MERZ.

Distribution. Austria, Belgium, Britain, China (Taiwan, new record to Ningxia), Czech Republic, Danish, Estonia, French mainland, Germany, Hungary, Ireland, Italian, Latvia, Lithuania, Norwegian, Poland, Russia, Slovakia, Sweden, Switzerland, The Netherlands.

Sapromyza (Sapromyza) annulifera Malloch, 1929

(Figs 5-6, 19-23)

Sapromyza annulifera Malloch, 1929: 29. Type locality: "Orient". Sasakawa, 2008: 44.

Diagnosis. Frons with sparse silver grayish yellow pruinosity except for anterior margin bare, a pair of yellow stripes extending to ocellar triangle. Face shining, with a broad black transverse band. Antenna yellow, except 1st flagellomere pale brown at tip. Palpus black, except yellow on base 1/4. Mesonotum with a broad dense silver grayish yellow pruinosity stripe between two rows of *sa*, extending to tip of scutellum; 0+2 *dc*, *acr* in 4 rows; no *prsc*. Wing slightly dark yellow, without spot. Abdomen with sparse yellowish gray pruinosity. Male tergites 1-6 entirely black, protandrium pale brown and epandrium brownish yellow; female tergites 1-6 mostly black except tergites 3-6 each with a pair of yellow elliptical lateral spots. Male genitalia (Figs 19-23): protandrium semicircular; epandrium broad ventrally with a blunt subapical process in lateral view; surstyli short triangular in lateral view, and curved digitiform in posterior view; hypandrium nearly U-shaped, gonopod curved and bifurcated subapically; aedeagus consisting of a pair of subuliform ventral sclerites, broad basally with tiny teeth, and a pair of incurved dorsal sclerites, narrow, converged basally in lateral view; aedeagal apodeme longer than aedeagus, Y-shaped.

Remarks. The type specimens were not deposited in USNM.

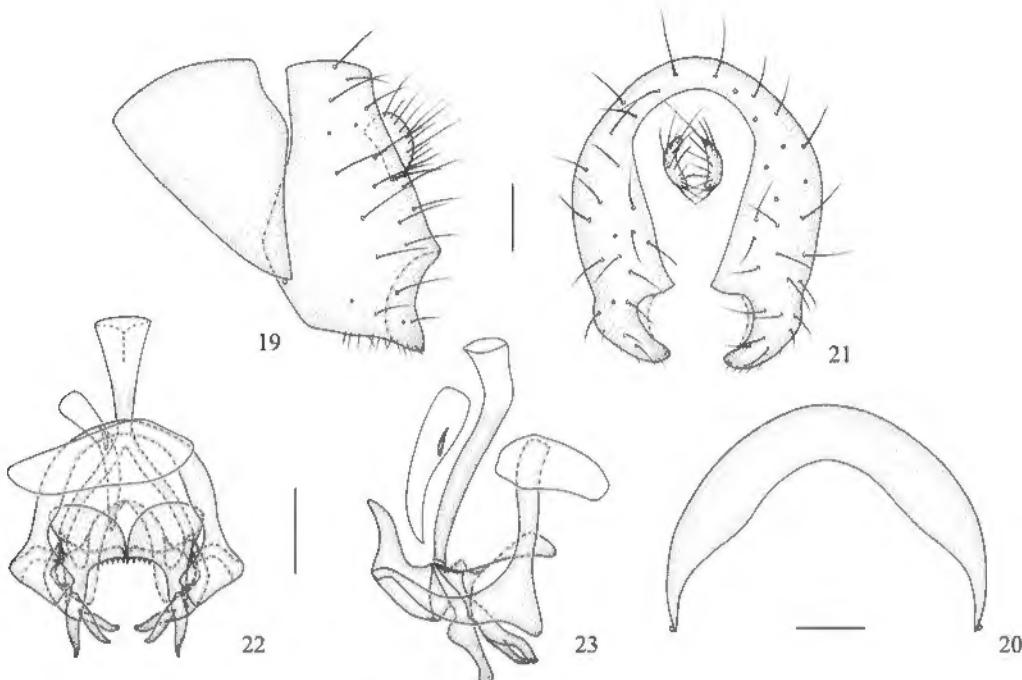
Material examined. 3 ♂♂, 4 ♀♀ (CAUC), China, Hongmao Village (19° 01' N, 109° 40' E; alt. 430 m), Yinggeling National Nature Reserve, Baisha, Hainan, 22 May 2007, ZHANG Kui-Yan; 2 ♂♂, 2 ♀♀ (CAUC), same locality and date as above, ZHANG Jun-Hua; 1 ♂, 2 ♀♀ (CAUC), China, Sanfenqu (18° 45' N, 108° 50' E; alt. 800 m), Jianfengliang National Nature Reserve, Ledong, Hainan, 8-9 May 2008, LIU Qi-Fei; 1 ♀ (CAUC), China, Mingfenggu (18° 45' N, 108° 50' E; alt. 800 m), Jianfengling National Nature Reserve, Ledong, Hainan, 25 Oct. 2007, YANG Ding; 1 ♀ (CAUC), China, Guanshantai (18° 46' N, 109° 31' E; alt. 600 m), Shuiman, Wuzhishan National Nature Reserve, Hainan, 29 Oct. 2007, LIU Xing-Yue.

Distribution. New record to China (Hainan).

Sapromyza (Sapromyza) conjuncta Sasakawa, 2002 (Figs 24-30)

Sapromyza (Sapromyza) conjuncta Sasakawa, 2002: 46. Type locality: Formosa, Taipei (China; Taiwan). Sasakawa, 2008: 44.

Diagnosis. Antenna yellow, except for 1st flagellomere yellowish brown on apical 1/2. Face yellow,



Figs 19–23. *Sapromyza (Sapromyza) annulifera* Malloch, 1929, male. 19. Protandrium and epandrium, lateral view. 20. Protandrium, anterior view. 21. Epandrial complex, posterior view. 22. Aedeagal complex, ventral view. 23. Aedeagal complex, lateral view. Scale bar = 0.1 mm.

with a narrow blackish brown transverse band on lower margin. Palpus yellow. Abdominal tergites 5–6 each with a pair of small black round spots near posterior margin. Mesonotum with 0+3 *dc*. Abdomen yellow, tergites 5–6 each with a pair of small black round spots. Male genitalia: protandrium very broad.

Holotype ♂ (BPBM, No. 16465), China, Taipei Suburbs, Taiwan, 21 Oct. 1957, T. C. Maa (Det. M. Sasakawa).

Distribution. China (Taiwan).

***Sapromyza (Sapromyza) fasciatifrons* (Kertész, 1913)**

Lauxania fasciatifrons Kertész, 1913: 92. Type locality: China, Taiwan. *Sapromyza fasciatifrons* (Kertész, 1913): Malloch, 1929: 29; Sasakawa, 2008: 44.

Translation from German literature.

Description. Body length 2.5–3.0 mm, wing length 2.6–3.1 mm.

Frons brownish black except narrow orange yellow anterior margin, slightly shining; posterior half with blackish gray pruinosity; *ac* long, extending to anterior margin of frons. Antenna: scape and pedicel black, 1st flagellomere yellow except brown apical margin, proportion of length and height of 1st flagellomere about 10.0:4.5; arista short pubescent, with longest setulae about 1/5 height of 1st flagellomere. Clypeus blackish brown with grayish pruinosity. Proboscis brown, palpus black.

Mesonotum blackish brown with yellowish gray pruinosity; 0+2 *dc*, *acr* in 8–10 rows, *prsc* developed. Scutellum blackish brown, mat, apical

scutellar seta crossed. Anepisternum and katepisternum black with grayish pruinosity except for connecting border between anepisternum and katepisternum yellowish brown, 1 *anepst*, 2 *kepst*. Leg yellow except for femur brown. Fore femur with 5–6 *pv*. Wing pale yellow. Halter yellow.

Abdomen black, mat with sparse brownish pruinosity.

Syntype specimens was collected from Chip Chip (I. III. 1909) and deposited in HNHM.

Distribution. China (Taiwan).

***Sapromyza (Sapromyza) flavopleura* Malloch, 1927**

Sapromyza flavopleura Malloch, 1927: 167. Type locality: Formosa, Taihoku (China, Taiwan). Malloch, 1929: 29; Sasakawa, 1998: 72; 2008: 44.

Diagnosis. See original English description in the above-mentioned references.

Remarks. The type specimens were not deposited in USNM, ZNS, MNHU and SDEI.

Distribution. China (Taiwan); Japan (Ryukyu Islands).

***Sapromyza (Sapromyza) pleuralis* (Kertész, 1913)**

Lauxania (Minettia) pleuralis Kertész, 1913: 96. Type locality: China, Taiwan. *Sapromyza pleuralis* (Kertész, 1913): Malloch, 1929: 30. Sasakawa, 2008: 45.

Translation from German literature.

Description. Body length 1.6 mm, wing length 1.5 mm.

Frons yellow, mat with a pair of grayish brown stripes on sides of ocellar triangle, extending forward



Figs 24–30. *Sapromyza (Sapromyza) conjuncta* Sasakawa, 2002, male. 24. Habitus, lateral view. 25–27. Head, anterior, dorsal and lateral view. 28. Thorax, dorsal view. 29. Abdomen, dorsal view. 30. Wing.

and convergent on anterior margin of frons; base of two pairs of *or* pale blackish gray; *ac* long, extending to anterior margin of frons; narrow white shining areas along top of eye margin. Antenna: scape and pedicel black, 1st flagellomere pale yellow, oval; arista long plumose. Clypeus brown with gray pruinosity. Proboscis yellow, palpus black.

Mesonotum yellowish gray, with a pair of broad blackish gray median stripes between *dc* rows, extending before apical tip of scutellum, a narrow blackish gray stripe along notopleuron; *0+2 dc, acr* in 6 rows; no *prsc*. Anepisternum yellow and katepisternum yellow except blackish gray upper margin, 1 *anepst*, 2 *kepst*. Leg yellow. Fore femur with 4 *pv*. Wing pale yellow. Halter yellow.

Abdomen brownish yellow.

Type specimen was collected from Yentempo (19 May 1907) and deposited in HNHM.

Remarks. The species is similar to *Sapromyza pusillima* (de Meijere, 1914) from Indonesia (Java), but the color of the mesonotum is bluish gray in the latter.

Distribution. China (Taiwan); Philippines

(Luzon).

***Sapromyza (Sapromyza) pollinifrons* Malloch, 1927**
(Figs 31–41)

Sapromyza pollinifrons Malloch, 1927: 168. Type locality: Formosa, Hoozan (China, Taiwan). Malloch, 1929: 29. Sasakawa, 2008: 45.

Diagnosis. Antenna yellow; arista short plumose, with longest setula about 1/3 height of 1st flagellomere. Palpus yellow. Mesonotum with grayish pruinosity; *0+2, acr* in 4 rows; no *prsc*. Leg yellow, except for fore femur brown with yellow apical tip and mid and hind femora entirely brown. Abdomen: male brown without spots and female blackish brown, tergites 1–5 each with a pair of irregular yellow spots on lateral margin.

Remarks. The holotype specimen was not deposited in USNM, MNHU, SDEI and ZNS.

Material examined. Paratypes: 1 ♀ (USNM, red label), China, Hoozan, Formosa (Taiwan), 1911, H. Sauter (Det. J. R. Malloch). 1 ♂, 1 ♀ (USNM), Malaysia, Mt. Brinchang (4° 31' N, 101° 25' E; alt. 1 500–1 800 m), Pahang, Mar. 1963, H. E. McClure, ex. light trap (Det. Shewell,



Figs 31–41. *Sapromyza* (*Sapromyza*) *pollinifrons* Malloch, 1927, female. 31. Habitus. 32–35. Head, anterior, lateral and dorsal view. 36. Thorax, dorsal view. 37. Wing. 38–39. Female abdomen. 40–41. Male abdomen.

1965); 1 ♀ (USNM), China, HONG San-Se (28°40'N, 115°49'E; alt. 1 013 m), Kiangsi (Nanchang City), Jiangxi Province, 26 June 1936, A. L. Melander (Det. Malloch).

Distribution. China (Taiwan), new record to Malaysia (Pahang).

Sapromyza rubricornis Becker, 1907

Sapromyza rubricornis Becker, 1907: 264. Type locality: China (Tibet).

Translation from German literature.

Description. Frons pale brown. Parafacial with a little bit whitish pruinosity on lower half. Antenna pale brown; arista bare. Palpus brownish yellow. Thorax and scutellum pale brown, with grayish brown pruinosity, 0 + 3 *dc*, *acr* in irregular 6 rows. Anepisternum with sparse gray pruinosity. 1 *anepst*, 1 *kepst* (if anterior one present, very weak hair-like). Leg pale brown, tarsomere 5 blackish brown. Wing pale grayish yellow, vein brown; ultimate and



Figs 42–46. Habitus and thorax. 42–43. *Sapromyza (Sapromyza) septemnotata* Sasakawa, 2001. 44–45. *Sapromyza (Sapromyza) sexmaculata* Sasakawa, 2001. 46. *Sapromyza (Sapromyza) ventistriata* sp. nov.



Figs 47–52. *Sapromyza (Sapromyza) terminalis* Sasakawa, 2002, male. 47. Habitus, lateral view. 48–50. Head, anterior, lateral and dorsal view. 51. Wing. 52. Thorax, dorsal view.

penultimate section of M_1 in proportion of 2.5:1.0. Abdomen pale gray.

Type specimen (male) was collected from Tibet, Roborowski (end of June 1894).

Remarks. Maybe the type specimen was deposited in ZMAS.

Distribution. China (Tibet).

***Sapromyza (Sapromyza) septemnotata* Sasakawa, 2001 (Figs 42–43)**

Sapromyza (Sapromyza) septemnotata Sasakawa, 2001; 53. Sasakawa, 2008; 45.

Diagnosis. Frons wider than long, with a narrow pale brown median stripe extending to ocellar triangle. Antennal scape and pedicel black, 1st flagellomere yellow except for base of arista black. Mesonotum

with a brown median stripe, two brown sublateral stripes and two brown lateral stripes along notopleuron; 0 + 2 *dc*, *acr* in 6 rows. Legs yellow except for tarsomeres 4 – 5 pale brown, fore femur with a brown apical spot on inner side. Wing slightly dark yellow and a pale brown spot on *dm-cu*. Abdomen yellow, with sparse whitish gray pruinosity.

Type specimens were deposited in OMNH.

Material examined. 1 ♂ (CAUC), China, Wenquan (25° 17' N, 98° 47' E; alt. 1 500 m), Baihualing, Baoshan, Yunan, 29 May 2007, LIU Xing-Yue; 3 ♂♂, 1 ♀ (CAUC), China, Hongmao Village (19° 01' N, 109° 40' E; alt. 430 m), Yinggeling National Nature Reserve, Baisha, Hainan, 22 May 2007, ZHANG Jun-Hua and ZHANG Kui-Yan; 1 ♀ (CAUC), China, Forestry Centre (19° 06' N, 109° 04' E; alt. 1 000 m), Bawangling National Nature Reserve, Changjiang, Hainan, 26 May 2007, ZHANG Jun-Hua; 1 ♀ (CAUC), China, Dengshan Road (18° 46' N, 109° 31' E; alt. 1 000 m), Wuzhishan National Nature Reserve, Wuzhishan, Hainan, 17 May 2007, ZHANG Kui-Yan.

Distribution. Vietnam, new record to China (Yunnan, Hainan).

***Sapromyza* (*Sapromyza*) *sexmaculata* Sasakawa, 2001 (Figs 44 – 45)**

Sapromyza (*Sapromyza*) *sexmaculata* Sasakawa, 2001: 52. Sasakawa, 2008: 45.

Diagnosis. Mesonotum with a pair of blackish brown round lateral spots on anterior margin, a pair of larger blackish brown elliptical lateral spots near suture, a pair of short tiny blackish brown median stripes before vertical level of anterior *dc* and a pair of short broader blackish brown median stripes between posterior *dc* and posterior margin of mesonotum; 0 + 2 *dc*, *acr* in 6 rows. Scutellum yellow, with a pair of black lateral marginal spots between basal and apical scutellar setae. Legs yellow. Wing slightly dark yellow, with a pale brown spot on base of R_{2+3} , R_{4+5} , M_1 and CuA_1 ; brown cloud over *r-m* and *dm-cu*; subcostal cell brown.

Type specimens were deposited in OMNH.

Material examined. 1 ♂, 2 ♀♀ (CAUC), China, Huangmaojian (27° 53' N, 119° 11' E; alt. 544 m), Fengyangshan National Nature Reserve, Longquan, Zhejiang, 29 July 2007, ZHU Ya-Jun; 9 ♂♂, 9 ♀♀ (CAUC), same locality as above, 27 July 2007, ZHU Ya-Jun; 1 ♂, 5 ♀♀ (CAUC), China, Fengyang Lake (27° 56' N, 119° 13' E; alt. 172 m), Fengyangshan National Nature Reserve, Longquan, Zhejiang, 28 July 2007, ZHU Ya-Jun; 1 ♂ (CAUC), China, Datianping (27° 56' N, 119° 13' E; alt. 172 m), Fengyangshan National Nature Reserve, Longquan, Zhejiang, 30 July 2007,

ZHU Ya-Jun; 1 ♂, 3 ♀♀ (CAUC), China, Hengyuan (27° 55' N, 120° 26' E; alt. 67 m), Shunxi, Zhejiang, 22 – 23 July 2007, ZHU Ya-Jun; 1 ♀ (CAUC), China, Dong'er station (19° 06' N, 109° 04' E; alt. 1 000 m), Bawangling National Nature Reserve, Changjiang, Hainan, 24 May 2007, ZHANG Jun-Hua; 1 ♀ (CAUC), same locality and date as above, ZHANG Kui-Yan.

Distribution. Laos, Vietnam, new record to China (Zhejiang, Hainan).

***Sapromyza* (*Sapromyza*) *sexpunctata* Meigen, 1826**

Sapromyza sexpunctata Meigen, 1826: 262. Type locality: Germany (Aachen area). Shatalkin, 2000: 72.

Diagnosis. Body yellow, only abdominal tergites 4 – 5 each with a pair of black round spots near anterior margin, which are covered partly by dorsal sclerites (larger spots on tergite 5).

Type specimen (male, no head) was deposited in MNHN.

Material examined. 3 ♂♂, 3 ♀♀ (CAUC), China, Longtan (35° 29' N, 106° 19' E; alt. 1 880 m), Jingyuan, Ningxia, 6 July 2008, YAO Gang; 1 ♀ (CAUC), China, Sutai (35° 37' N, 106° 07' E; alt. 2 100 m), Longde, Ningxia, 23 June 2008, YAO Gang.

Distribution. Austria, Belgium, Britain; China (Ningxia); Czech Republic, Denmark, Finland, France, Germany, Hungary, Republic of Ireland, Italy, Japan, Latvia, Liechtenstein, Lithuania, North Korea, Norway, Poland, Romania, Russia (including Far East), Slovakia, Sweden, Switzerland, The Netherlands, Ukraine, former Yugoslavia (incl. Serbia, Kosovo, Voivodina, Montenegro).

***Sapromyza* (*Sapromyza*) *terminalis* Sasakawa, 2002 (Figs 47 – 52)**

Sapromyza (*Sapromyza*) *terminalis* Sasakawa, 2002: 47. Type locality: Formosa, Mt. Alishan (China, Taiwan); Sasakawa, 2008: 44.

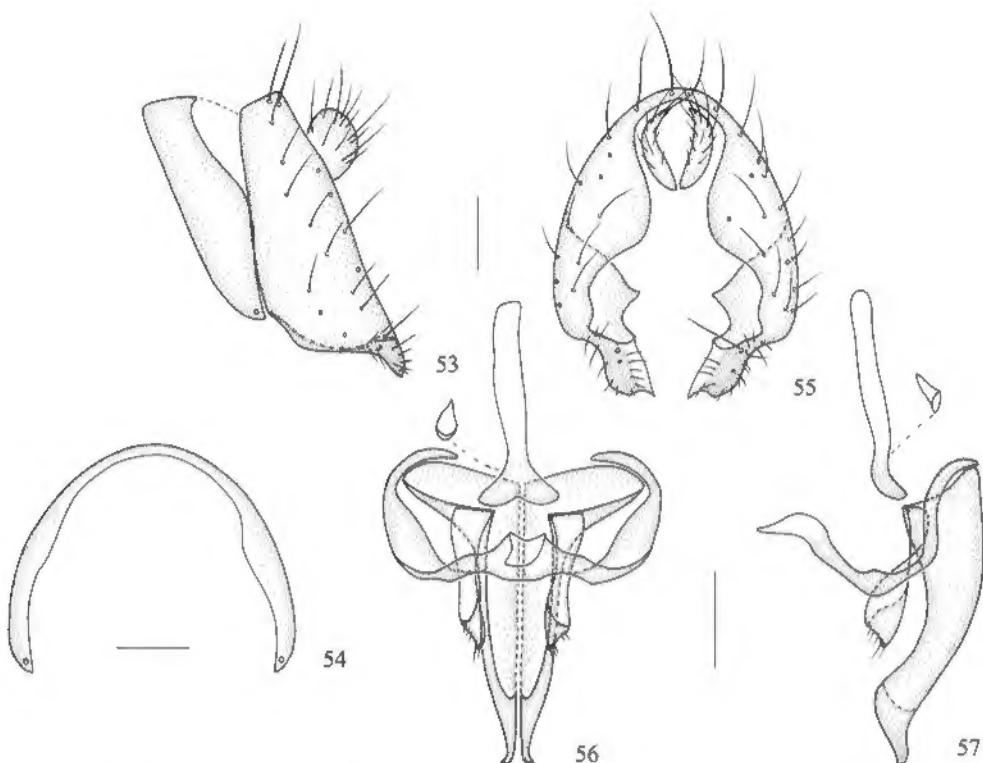
Diagnosis. Antenna yellow, 1st flagellomere round. Palpus yellow. Mesonotum with 0 + 3 *dc*, *acr* in 4 rows. Leg yellow except for tarsomeres 3 – 5 brown. Abdomen dark pale yellow, tergites 2 – 6 each with brownish black posterior margin and tergites 4 – 6 each with a pair of dark brown suboval or quadrate spots (Sasakawa, 2002).

Material examined. Holotype ♂ (BPBM, No. 16466), China; Alishan, Chisyi, Hsien, Taiwan (23° 26' N, 120° 46' E; alt. 2 270 m), 8 – 9 June 1965, C. M. YOSHIMOTO, ex. Malaise trap (Det. M. Sasakawa).

Distribution. China (Taiwan).

***Sapromyza* (*Sapromyza*) *ventistriata* sp. nov. (Figs 46, 53 – 57)**

Description. Male. Body length 2.5 – 2.7 mm,



Figs 53–57. *Sapromyza (Sapromyza) ventistriata* sp. nov., male. 53. Pprotandrium and epandrium, lateral view. 54. Pprotandrium, anterior view. 55. Epandrial complex, posterior view. 56. Aedeagal complex, ventral view. 57. Aedeagal complex, lateral view. Scale bars = 0.1 mm.

wing length 2.6–3.0 mm. Female. Body length 2.5–2.7 mm, wing length 2.7–3.0 mm.

Head dark yellow. Face with a broad blackish brown transverse band (concave at middle) on lower margin. Frons slightly wider than long and parallel-sided, with two narrow blackish brown median stripes extending to ocellar triangle; ocellar triangle grayish black; *oc* strong, shorter than posterior *or*, anterior or nearly 1/2 length of posterior *or*. Gena about 1/6 height of eye. Antenna mostly black except for 1st flagellomere yellow on ventral 1/2, 1st flagellomere 1.7 times longer than high; arista plumose, black except for brownish base, with longest setulae slightly shorter than height of 1st flagellomere. A small blackish brown spot present between eye and base of antenna. Proboscis brownish yellow, with yellowish and blackish setulae; palpus black, with blackish setulae.

Thorax dark yellow, with whitish gray pruinosity. Mesonotum with a brown median stripe, two brown sublateral stripes and two brown lateral stripes along notopleuron; 0+2 *dc*, *acr* in 4 rows; *prsc* shorter than 1st post-sutural *dc*. Anepisternum yellow with a blackish brown median transverse band and katepisternum blackish brown except for narrow yellow upper margin, 1 *anepst*, 1 *kepst*. Scutellum yellow with two blackish brown stripes, not extending to apical tip. Legs mostly yellow except for fore coxa, all

femora, basal tips of all tibiae and tarsomeres 3–5 black. Fore femur with 4 *pv* and 6 *pd*; fore tibia with 1 long preapical *ad* and 1 short *apv*. Mid femur with 4 *a* and 1 *app*; mid tibia with 1 strong preapical *ad* and 1 strong *apv*. Hind femur with 1 preapical *ad*; hind tibia with 1 preapical *ad* and 1 short *apv*. Wing (Fig. 1) slightly yellow, without spot; subcostal cell hyaline; costa with 2nd (between R_1 and R_{2+3}), 3rd (between R_{2+3} and R_{4+5}) and 4th (between R_{4+5} and M_1) sections in proportion of 1.7 mm: 0.5 mm: 0.2 mm; *r-m* at middle of discal cell; ultimate and penultimate sections of M_1 in proportion of 1.1 mm: 1.1 mm; ultimate section of CuA_1 about 1/4 of penultimate. Halter yellow.

Abdomen dark yellow with sparse whitish gray pruinosity; tergites 1–2 each with a pair of black lateral transverse bands, tergites 3–6 each with a black median spot and a pair of black lateral bands. Male genitalia (Figs 53–57): protandrium semicircular; epandrium nearly trapeziform in lateral view and with a pair of broad subbasal processes in posterior view; surstyli short digitiform with acuate tip in lateral view; hypandrium slender and nearly Y-shaped, gonopod subuliform with 5–6 apical setulae; aedeagus slender, constricted apically, with a pair of laterally curved apical processes in ventral view and contorted columnar in lateral view; aedeagal apodeme shorter than aedeagus.

Remarks. The new species is similar to *S. (S.) zebra* Kertész from the Oriental Region in the following characters: mesonotum with five brown stripes, 0 + 2 *dc*; scutellum with two blackish brown stripe-like spots, not extending to apical tip; all femora brown to black; abdominal tergites 3 – 6 each with a black median spot and a pair of black lateral bands. But it can be separated from the latter by the antennal 1st flagellomere yellow on ventral 1/2, the mesonotum having *acr* in 4 rows.

Holotype ♂ (CAUC), China, Botanical Garden (18° 34' N, 108° 52' E; alt. 800 m), Jianfengling National Nature Reserve, Ledong, Hainan, 24 Oct. 2007, YANG Ding. Paratypes: 3 ♂ ♂, 2 ♀ ♀ (CAUC), same locality as holotype, 25 Oct. 2007, LIU Xing-Yue; 1 ♂ (CAUC), Dong'er station (19° 06' N, 109° 04' E; alt. 1 000 m), Bawangling National Nature Reserve, Changjiang, Hainan, 24 May 2007, ZHANG Jun-Hua; 4 ♂ ♂, 6 ♀ ♀ (CAUC), same locality as above, 21 – 22 Oct. 2007, LIU Xing-Yue.

Distribution. China (Hainan).

Etymology. Latin, *vent-*, prefix meaning abdomen + *striata*, meaning stripes, referring to abdominal tergites 1 – 2 each with a pair of black lateral bands, tergites 3 – 6 each with a black median spot and a pair of black lateral bands; a feminine adjective.

Sapromyza (Sapromyza) zebra (Kertész, 1913)

Lauxania (Minettia) zebra Kertész, 1913: 95. Type locality: China, Taiwan.

Sapromyza (Sapromyza) zebra (Kertész, 1913); Sasakawa, 1998: 72; 2002: 36; 2008: 45.

Translation from German literature.

Description. Body length 2.5 mm, wing length 2.5 mm.

Frons brownish yellow, with a pair of blackish brown median stripes, extending to ocellar triangle. Anterior *or* about half length of posterior *or*. Antennal scape and pedicel blackish brown, 1st flagellomere yellow except for blackish brown on apical 2/3; length and height of 1st flagellomere in proportion of 8:6. Arista plumose, with longest setula about 1/3 height of 1st flagellomere. Face with a wide blackish brown transverse band near ventral margin. Gena and clypeus brownish yellow. Occiput with broad dark brownish spots. Proboscis pale brown except dark brown base, palpus black.

Mesonotum brownish yellow, mat with five blackish brown stripes. A median stripe along *acr* rows, extending to *prsc*; two long stripes along *dc* rows, extending to tip of scutellum and convergent apically; two short stripes along notopleural setae; 0 + 2 *dc*, *acr* in 6 rows, *prsc* developed. Scutellum brownish yellow, with a pair of blackish brown

stripes, nearly V-shaped. Anepisternum with a blackish brown median transverse band and katepisternum with a blackish brown transverse band on upper margin, 1 *anepst*, 2 *kepst*. Legs pale brownish yellow except for femur brown to blackish brown. Fore femur with 4 *pv*. Wing pale yellow. Halter yellow.

Abdomen brownish yellow, tergites 2 – 6 each with a black median spot and a pair of black lateral spots on anterior margin.

Type specimen was collected from Chip Chip (I. 1909) and deposited in HNHM.

Distribution. China (Taiwan); Japan (Ryukyu Islands), Nepal.

Appendix

The species list of *Sapromyza* in China.

1. *Sapromyza (Notiosapromyza) hainanensis* sp. nov. Oriental; China (Hainan).
2. *S. (N.) longimentula* Sasakawa, 2001. Oriental; China (Hainan); Vietnam.
3. *S. (Sapromyza) agromyzina* (Kertész, 1913). Oriental; China (Taiwan).
4. *S. (S.) albiceps* Fallén, 1820. Oriental; China (Taiwan); Palaearctic; Austria, Belgium, Britain, China (Ningxia), Czech Republic, Denmark, Estonia, France, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, Netherlands, Northern Ireland, Norway, Poland, Russia, Slovakia, Sweden, Switzerland.
5. *S. (S.) annulifera* Malloch, 1929. Oriental; China (Hainan).
6. *S. (S.) conjuncta* Sasakawa, 2002. Oriental; China (Taiwan).
7. *S. (S.) fasciatifrons* (Kertész, 1913). Oriental; China (Taiwan).
8. *S. (S.) flavopleura* Malloch, 1927. Oriental; China (Taiwan); Japan (Ryukyu Islands).
9. *S. (S.) pluralis* (Kertész, 1913). Oriental; China (Taiwan); Philippines (Luzon).
10. *S. (S.) pollinifrons* Malloch, 1927. Oriental; China (Taiwan); Malaysia (Pahang).
11. *S. (S.) rubricornis* Becker, 1907. Oriental; China (Tibet).
12. *S. (S.) septemnotata* Sasakawa, 2001. Oriental; China (Yunnan, Hainan); Vietnam.
13. *S. (S.) sexmaculata* Sasakawa, 2001. Oriental; China (Zhejiang, Hainan); Laos, Vietnam.
14. *S. (S.) sexpunctata* Meigen, 1826. Palaearctic; Austria, Belgium, Britain; China (Ningxia); Czech Republic, Denmark, Finland, France, Germany, Hungary, Republic of Ireland, Italy, Japan, Latvia, Liechtenstein, Lithuania, North Korea, Norway, Poland, Romania, Russia (incl. Far East), Slovakia, Sweden, Switzerland, The Netherlands, Ukraine, former Yugoslavia (incl. Serbia, Kosovo, Voivodina, Montenegro).
15. *S. (S.) terminalis* Sasakawa, 2002. Oriental; China (Taiwan).
16. *S. (S.) ventriplata* sp. nov. Oriental; China (Hainan).
17. *S. (S.) zebra* (Kertész, 1913). Oriental; China (Taiwan); Japan (Ryukyu Islands), Nepal.

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中国 缟蝇亚科双鬃缟蝇属分类研究 (双翅目, 缟蝇科)

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摘要 介绍了分布于我国的双鬃缟蝇属 17 种, 包括 2 新种和 4 新纪录种, 即 *Sapromyza (Notiosapromyza) hainanensis* sp. nov., *Sapromyza (Sapromyza) ventistriata* sp. nov., *S. (N.) longimentula* Sasakawa, 2001, *S. (S.) annulifera* Malloch, 1929, *S. (S.) sexmaculata* Sasakawa, 2001, *S. (S.) septemnotata* Sasakawa, 2001, 并编制了分种检索表。

海南双鬃缟蝇, 新种 *Sapromyza (Notiosapromyza) hainanensis* sp. nov. (图 1~2, 7~11)

该种与四齿双鬃缟蝇相似, 主要鉴别特征如下: 颜区腹缘具 1 阔横带, 腹部 4~5 节背板后缘各有 1 对褐色侧带; 侧面观背侧突近三角形, 具小腹端凹, 其上有短鬃, 但无大而尖的端突。模式标本存放于中国农业大学昆虫标本馆。

关键词 缟蝇科, 双鬃缟蝇属, 新种。

中图分类号 Q969.459.2

正模 ♂, 海南白沙县鹦哥岭红茂村, 2007-05-22, 张俊华采。

词源: 新种种名以其采集地定名。

腹带双鬃缟蝇, 新种 *Sapromyza (Sapromyza) ventistriata* sp. nov. (图 1~2, 7~11)

该种与多斑双鬃缟蝇相似, 主要鉴别特征如下: 触角第 1 鞭节腹半部黄色, 中胸背板中鬃 4 排。模式标本存放于中国农业大学昆虫标本馆。

正模 ♂, 海南乐东镇尖峰岭植物园, 2007-10-24, 杨定采。

词源: 新种据其特征腹部 1~2 节背板具带状斑而定名。

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